

Commercial Space Transportation License

License Number: LLS 17-104 (Rev 1)

SPACE EXPLORATION TECHNOLOGIES

is authorized, subject to the provisions of 51 USC Subtitle V, ch. 509, and the orders, rules, and regulations issued under it, to conduct a launch.

General. Space Exploration Technologies is authorized to conduct:

(i) A flight of the Falcon 9 launch vehicle from Launch Complex 40 at Cape Canaveral Air Force Station (CCAFS) in support of the Zuma mission, transporting a payload to low Earth orbit; and

(ii) pre-flight ground operations at CCAFS associated with the flight, as identified in paragraph (i) of this license, of the Falcon 9 launch vehicle.

This license is granted subject to the terms, conditions, and limitations set forth in licensing orders A, B, C, and D and any subsequent orders issued by the Office of Commercial Space Transportation.

The licensee shall at all times conduct its operations in accordance with the regulations prescribed by the Office of Commercial Space Transportation for the activities authorized by this license.



US Department
of Transportation
Federal Aviation
Administration

800 Independence Ave., S.W.
Washington, D.C. 20591

Original Issued: November 9, 2017
Rev 1 Issued: December 22, 2017
Rev 1 Effective: December 22, 2017

Kenneth Wong

Manager, Licensing and Evaluation Division

Revision History:

Original License - November 9, 2017

Revision 1 - Issued December 22, 2017

- 1) Changed "Falcon 9 Version 1.2" to "Falcon 9"
- 2) Changed "Launch Complex 39A at Kennedy Space Center (KSC)" to "Launch Complex 40 at Cape Canaveral Air Force Station(CCAFS)"

License Order No. LLS 17-104A (Rev 1)

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

LAUNCH

AUTHORIZED BY LICENSE NO. LLS 17-104
ISSUED TO

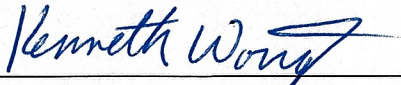
SPACE EXPLORATION TECHNOLOGIES

1. Authority: This Order is issued to Space Exploration Technologies, referred to as SpaceX, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LLS 17-104, originally issued November 9, 2017, by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing SpaceX to conduct the launch of a Falcon 9 launch vehicle; and prescribes as conditions to License No. LLS 17-104 certain requirements applicable to the launch.
3. Definitions: For purposes of License No. LLS 17-104 and any orders issued by the FAA pertaining to activities covered by License No. LLS 17-104:
 - (i) "Flight" shall mean the flight of a Falcon 9 launch vehicle, commencing with ignition of the first stage from Cape Canaveral Air Force Station (CCAFS) and transporting the Zuma mission payload to low Earth orbit. Flight includes landing of the Falcon 9 first stage as indicated in the license application. Flight is concluded upon SpaceX's last exercise of control over the Falcon 9 vehicle, including the safing of the Falcon 9 vehicle stage or components that reach Earth orbit, following separation of the payload.
 - (ii) "Pre-flight ground operations" shall mean SpaceX's pre-flight preparations of a Falcon 9 launch vehicle at CCAFS, beginning with the arrival of the Falcon 9 launch vehicle at CCAFS.
4. License Term: The license terminates upon completion of the launch authorized by the license, or one (1) year from

License Order No. LLS 17-104A (Rev 1)

the effective date of this license order, whichever comes first.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: 
Kenneth Wong, Manager
Licensing and Evaluation Division

Original Issued:	November 9, 2017
Rev 1 Issued:	December 22, 2017
Rev 1 Effective:	December 22, 2017

Revision History:

Original License - Issued November 9, 2017

Revision 1 - Issued December 22, 2017

- 1) Changed "Falcon 9 Version 1.2" to "Falcon 9"
- 2) Changed "Kennedy Space Center (KSC)" to "Cape Canaveral Air Force Station(CCAFS)"

License Order No. LLS 17-104B (Rev 1)

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

FLIGHT

AUTHORIZED BY LICENSE NO. LLS 17-104
ISSUED TO

SPACE EXPLORATION TECHNOLOGIES

1. Authority: This Order is issued to Space Exploration Technologies, referred to as SpaceX, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LLS 17-104 originally issued on November 9, 2017, by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing SpaceX to conduct the launch of a Falcon 9 launch vehicle; and prescribes as conditions to License No. LLS 17-104 certain requirements applicable to the authorization to conduct the flight of this launch vehicle.
3. Authorization: SpaceX is authorized to conduct a flight of the launch vehicle:
 - (a) Using a Falcon 9 launch vehicle;
 - (b) From Cape Canaveral Air Force Station (CCAFS), Florida;
 - (c) Transporting the Zuma mission payload to low earth orbit; and
 - (d) According to the launch vehicle, launch vehicle systems, and safety management program represented in the SpaceX application as of the date of this order, and any amendments to the license application approved by the FAA, in writing.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: Kenneth Wong
Kenneth Wong, Manager
Licensing and Evaluation Division

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Revision History:

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- 1) Changed "Falcon 9 Version 1.2" to "Falcon 9"
- 2) Changed "Kennedy Space Center (KSC)" to "Cape Canaveral Air Force Station(CCAFS)"

License Order No. LLS 17-104C (Rev 1)

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

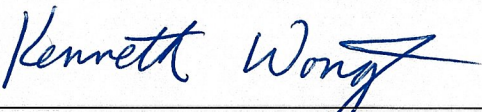
PRE-FLIGHT GROUND OPERATIONS

AUTHORIZED BY LICENSE NO. LLS 17-104
ISSUED TO

SPACE EXPLORATION TECHNOLOGIES

1. Authority: This Order is issued to Space Exploration Technologies, referred to as SpaceX, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LLS 17-104 originally issued on November 9, 2017, by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing SpaceX to conduct the launch of a Falcon 9 launch vehicle; and prescribes as conditions to License No. LLS 17-104 certain requirements applicable to the authorization to conduct pre-flight ground operations.
3. Authorization: SpaceX is authorized to conduct pre-flight ground operations at Cape Canaveral Air Force Station (CCAFS) associated with the launch of the Zuma mission payload on a Falcon 9 launch vehicle.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: 
Kenneth Wong, Manager
Licensing and Evaluation Division

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License Order No. LLS 17-104C (Rev 1)

Revision History:

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- 1) Changed "Falcon 9 Version 1.2" to "Falcon 9"
- 2) Changed "Kennedy Space Center (KSC)" to "Cape Canaveral Air Force Station(CCAFS)"

License Order No. LLS 17-104D (Rev 1)

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

FINANCIAL RESPONSIBILITY REQUIREMENTS

UNDER LICENSE NO. LLS 17-104
ISSUED TO

SPACE EXPLORATION TECHNOLOGIES

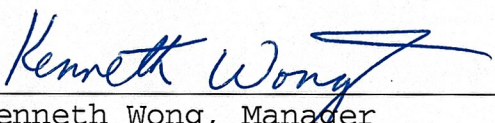
1. Authority: This Order is issued to Space Exploration Technologies, referred to as SpaceX, under 51 U.S.C. Subtitle V, chapter 509, and 14 C.F.R. part 440.
2. Purpose: This Order modifies License No. LLS 17-104 originally issued on November 9, 2017, by the Federal Aviation Administration's Office of Commercial Space Transportation, by prescribing financial responsibility requirements for licensed launch activities in accordance with 14 C.F.R. part 440.
3. Definitions: For purposes of this Order, "licensed launch activities" shall mean activities authorized by the License. Other terms used in this Order are defined in accordance with 14 C.F.R. § 440.3.
4. Liability Insurance: SpaceX shall maintain a policy or policies of liability insurance (or otherwise demonstrate financial responsibility) in accordance with 14 C.F.R. § 440.9(b) in the amount of:
 - (a) One Hundred Sixty Million Dollars (\$160,000,000) for covered claims resulting from flight of the Falcon 9 launch vehicle from Cape Canaveral Air Force Station (CCAFS) and
 - (b) Twelve Million Dollars (\$12,000,000) for covered claims resulting from pre-flight operations performed at CCAFS.

License Order No. LLS 17-104D (Rev 1)

5. Government Property Insurance: SpaceX shall maintain a policy or policies of insurance (or otherwise demonstrate financial responsibility) in accordance with 14 C.F.R § 440.9(d) in the amount of:
- (a) One Hundred Million Dollars (\$100,000,000) for covered claims resulting from flight of the Falcon 9 launch vehicle from CCAFS and
 - (b) Forty-Three Million Dollars (\$43,000,000) for covered claims resulting from pre-flight operations performed at CCAFS.
6. Covered property includes all property owned, leased, or occupied by, or within the care, custody, or control of, the United States and its agencies, and its contractors and subcontractors involved in licensed launch activities, at CCAFS and KSC.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By:


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Revision History:

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- 1) Changed "Falcon 9 Version 1.2" to "Falcon 9"
- 2) Changed "Kennedy Space Center (KSC)" to "Cape Canaveral Air Force Station (CCAFS)"
- 3) In paragraph (5)(b), changed "Sixty-three Million Dollars (\$63,000,000)" to "Forty-three Million Dollars (\$43,000,000)"